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ABSTRACT

This publication offers suggestions for business leaders on how they can help support the reform of teacher education and, in the process, create the diverse, qualified, and culturally responsive teaching force that is needed. Through grant making, technical assistance, and cooperative effort, corporate officials can help to reformulate the job of teacher development from a continuous, systems perspective, i.e., teachers should not be produced by one sector (teacher education schools) to be consumed by a different, unrelated sector (schools). Education can learn much from business about managing diversity and developing human potential. Yet business leaders must first learn the education issues and under what conditions and with what success they can be addressed. Second, they must choose options or entry points best suited to educational expectations, needs, and resources. Third, they must develop a clearly focused strategy, monitor its progress, and record its effectiveness. Specific opportunities for business leaders include: supporting efforts to recruit top students into teaching, promoting efforts to improve teachers' content knowledge, helping teachers to learn a variety of ways to teach students, and supporting and advocating the redesign of teacher education. Business has the power to bring difficult education issues to the attention of state and local officials and to influence creative approaches to solving them. Financial support for path-breaking reforms in teacher education is critical, and the opportunities for corporate investment are great as evidenced by cited examples of existing business support for teacher education. A list of organizations working on teacher education is appended. (NAV)

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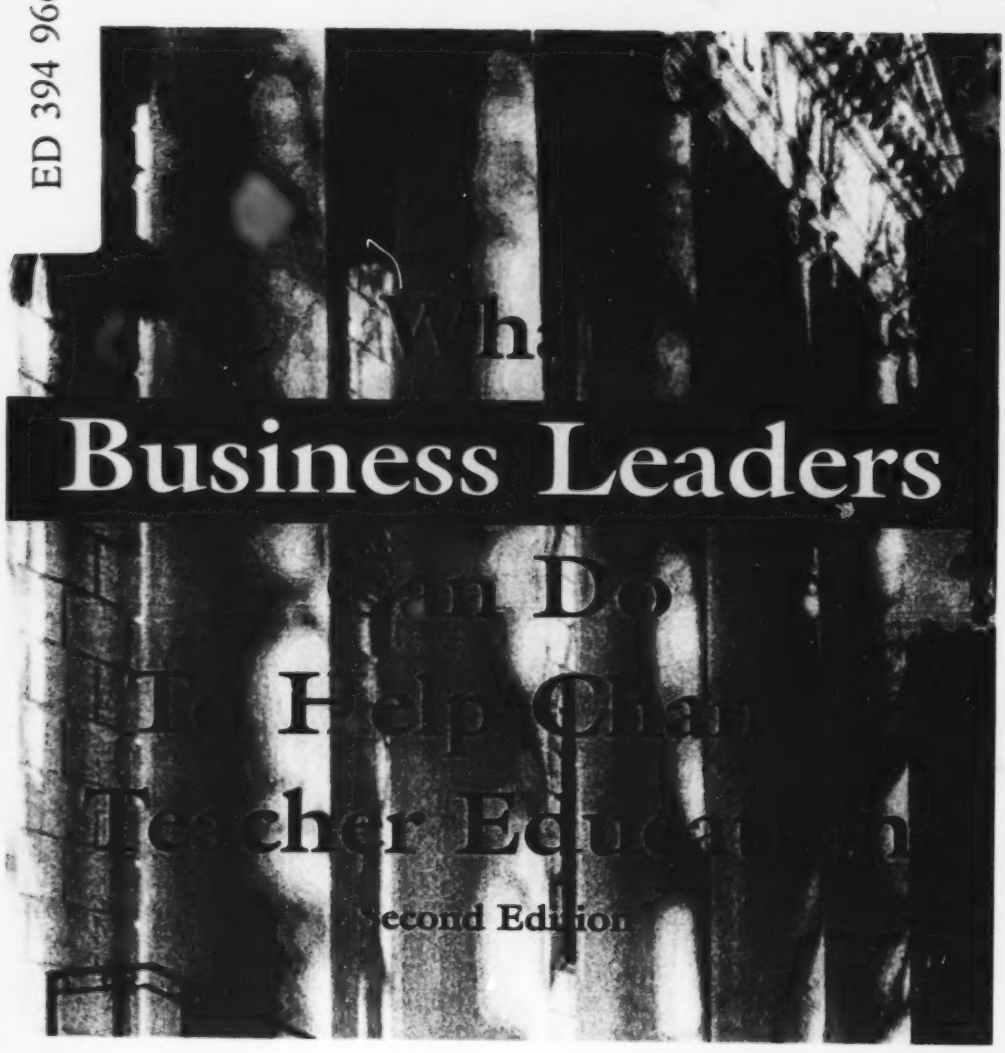

What Business Leaders Can Do To Help Change Teacher Education

Second Edition

by Diana Rigden
Foreword by David Rockefeller, Jr.

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AACTE Forum Series

What Business Leaders Can Do To Help Change Teacher Education

Second Edition

by Diana W. Rigden
Council for Basic Education

Foreword by David Rockefeller, Jr.

AACTE
AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION
One Dupont Circle, Suite 610
Washington, DC 20036-1186

The issuance of John I. Goodlad's book, *Teachers for Our Nation's Schools*, was a milestone in the continuing dialogue on reform in teacher education. Accompanying that volume were four guides to illustrate specific actions for renewing the education of educators simultaneously with reforming the nation's schools. The guides grew out of a project, Advancing the Agenda for Teacher Education in a Democracy, sponsored by the American Association of Colleges for Teacher Education, the Center for Educational Renewal at the University of Washington, and the Education Commission of the States. The four guides were:

What Business Leaders Can Do To Help Change Teacher Education
What College and University Leaders Can Do To Help Change Teacher Education
What School Leaders Can Do To Help Change Teacher Education
What State Leaders Can Do To Help Change Teacher Education

Now, halfway through the decade, these booklets have been revised and are being issued to provide support to those engaged in the continuing effort to strengthen teacher education in the country.

The production and printing of the AACTE Forum Series were underwritten by a grant from the SBC Foundation (formerly Southwestern Bell Foundation).

The opinions, conclusions, and recommendations expressed in this guide do not necessarily reflect the views or opinions of the American Association of Colleges for Teacher Education. The AACTE does not endorse or warrant this information. The AACTE is publishing this document to stimulate discussion, study, and experimentation among educators. The author was encouraged to express her judgment freely. The reader must evaluate this information in light of the unique circumstances of any particular situation and must determine independently the applicability of this information thereto.

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—Diana Wyllie Rigden
November 1995

Foreword

In *What Business Leaders Can Do To Help Change Teacher Education*, Diana Rigden and AACTE have provided a tremendous service to corporate America and the nation at large. The publication's thoughtful recommendations provide a much-needed overview of how business leaders can help support the reform of teacher education and, in the process, create the diverse, qualified, and culturally responsive teaching force the nation urgently needs.

A massive teacher recruitment and development challenge looms for almost every school district in the country, rich or poor, suburban, urban, or rural. Why? Because in the future, more and more of our citizens and workers will be, in Ray Marshall and Marc Tucker's phrase, "thinking for a living." And thinking for a living requires teaching for understanding, the kind of teaching that develops critical thinkers and creative problem-solvers, not simply rote learners.

Thus, the demands on teacher preparation are greater now than at any other time in the nation's history. In addition, according to the National Commission on Teaching and America's Future, the nation will need to hire nearly two million new teachers over the next decade due to rising student enrollments and growing teacher retirements, compounding the nation's teacher development challenge.

In this regard, improved teacher education must be seen as part of a broader agenda: to develop a comprehensive approach to teacher recruitment, development, and diversity supporting the career continuum of the professional teacher. New frameworks are needed for policy and practice that link recruitment, preparation, licensure, hiring, induction, and continuous professional development into a more coherent human resource development system for America's schools.

Only by viewing teacher recruitment and development systematically can we link the reform of teacher education with the quest for improved student performance which is ultimately the goal of school reform. Moreover, only by viewing teacher development as a system will we be able to invest adequately in teacher capacity as a nation. Just think how much money is wasted when one-third of new teachers walk out the door in the first five years of urban teaching or when precious investments in professional development are wasted on the product recall work of teacher preparation that was insufficiently aligned with school district needs.

...only by viewing teacher development as a system will we be able to invest adequately in teacher capacity as a nation.

Through grant making, technical assistance, and cooperative effort, corporate America can help reformulate the job of teacher development from a system's perspective—it's time to reassess the antiquated notion that teachers are "produced" by one set of institutions (i.e. colleges of education) and "consumed" by another set (i.e. school districts) in isolation from each other.

Surely it's time to develop a new paradigm of mutual responsibility for the development of the professional teacher. A "career-long approach" to teacher learning not only makes substantive sense, it is the only way, in an era of rising costs and budgetary demands, we are likely to find money to develop teacher capacity or to overcome the chronic under-funding of teacher development.

Business leaders can also play a critical role in alerting the public to education's human resource imperative:

- Educating the nation about the demands of teaching for understanding;
- Funding exemplary models of teacher recruitment and preparation; and
- Mobilizing the public to support the investment in teacher recruitment and development that is absolutely necessary to achieve our education goals.

In addition, since some of our best performing companies in the private sector have learned a lot about managing diversity and developing human potential, perhaps some of their lessons need to be applied to improving education's human resource practices, and creating a more qualified diverse and culturally-responsive teacher workforce.

What Business Leaders Can Do To Help Change Teacher Education provides clear, practical, and informative guidance to business leaders about what they can do to help shape the profession that shapes America's future. If we are successful in meeting this agenda, it may be the last education reform the nation will ever need: because the conditions for self-sustaining, continuous improvement in education, focused on high student achievement, will have been firmly established once and for all. Isn't that what business is looking for from reform? It certainly is a goal, I believe, that is worth making every effort to achieve.

—David Rockefeller, Jr.

David Rockefeller, Jr. is chairman of Rockefeller Financial Services. He chairs the nonprofit organization Recruiting New Teachers, Inc., a national campaign on behalf of an improved teaching force, and serves as a member of the National Commission on Teaching and America's Future.

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Advancing the Agenda for Teacher Education

Knowledgeable and enthusiastic teachers are essential to successful schooling. Educating teachers well and preparing them for the challenges of the classroom must be, therefore, a fundamental activity of school reform. It is teachers' knowledge and skills that shape the academic culture of a school. As states and communities define academic standards which all students are expected to meet, they recognize the need for highly qualified, professional teachers. The teachers needed for today's schools must be well-educated and strongly grounded in the liberal arts and sciences with a comprehensive knowledge of the subjects that they teach. Committed to student learning and success, teachers must be able to use a variety of instructional strategies, including information technology, to teach children from diverse backgrounds. In addition, teachers must be committed to continuous improvement in their skills and knowledge to foster better student outcomes.

This report describes how the teacher education enterprise is being challenged to transform teacher preparation so that this "professional teacher" becomes the norm. After 15 years of research and several major reports urging reform in schools of education, there is a widespread consensus on what changes need to occur: raise admission standards, integrate liberal arts and professional studies, institute early and frequent teaching practice in the schools, establish rigorous certification standards, and link the reform of teacher education with the reform of the K-12 system. While promising experiments to make these changes are underway in a number of colleges and universities, the bad news is that these reforms touch only a few schools of education and reach small numbers of students within those schools. To produce

teachers capable of helping all students reach high academic standards, the reform of teacher education must quickly become both broader and deeper.

Moreover, such reform needs to occur within the career-long continuum of teacher development that includes recruitment, preparation, licensure, selection and hiring, induction, and ongoing teacher development. This is "education's human resource system," and reforms of teacher education that occur in isolation from other aspects of this system are unlikely to improve the quality of teaching and learning in our schools.

...the development of a qualified, diverse, and culturally responsive teaching force is the heart of successful education reform.

Simply put, the development of a qualified, diverse, and culturally responsive teaching force is the heart of successful education reform. It needs to be placed at the center of education improvement efforts, systematically aligned with student achievement and school restructuring goals.

The Role of Business in Advancing the Agenda for Teacher Education

The business community has been an early and committed partner to school reform efforts, offering its resources, expertise, and volunteers to local schools and districts and its voice in support of major changes in education policy and practice at state and national levels. Many companies have sponsored professional development activities to improve the skills and capacity of elementary and secondary school teachers, and these experiences have led business leaders to recognize more clearly the critical need for high-quality teacher preparation programs.

A few companies have made substantial commitments to the improvement of teacher education through a number of innovative grants. The Exxon Education Foundation has provided generous support to John Goodlad over 15 years, helping launch his extensive and path-breaking research on the quality of teacher education and supporting his ongoing work to improve teacher preparation within the context of school reform. Exxon, the SBC Foundation (formerly Southwestern Bell Foundation), and the Philip Morris Companies are supporting a number of institutions as they undertake the reforms proposed by Goodlad. By supporting a variety of efforts to redesign the policies, practices, and structure of the teacher education enterprise, these companies, in addition to the BellSouth Foundation and the AT&T Foundation, have been at the forefront of corporate investment in reforming the preparation of teachers. Examples of programs they support are included in the discussion that follows.

Several private foundations have also been significant funders of the improvement of teacher education. The DeWitt Wallace-Reader's Digest Fund, for example, made a

substantial commitment to teacher recruitment, development, and diversity via its "Pathways to Teaching" program. The Ford Foundation sponsors eight statewide consortia efforts that aim to develop a more diverse teacher workforce through its Minorities in Teaching program. And the Rockefeller Brothers Fund has launched a major effort to improve early childhood teacher education, addressing the absence of comprehensive training and professional development systems for preschool and early elementary school teachers at the national, state, and local levels.

As the joint effort to reform teacher education and schools gathers momentum, business and community leaders can promote a rapid expansion of teacher education reform by holding states accountable for establishing high standards for teacher certification and program accreditation, by demanding closer links between teacher education and K-12 reform goals, and by supporting serious efforts to change. If they were willing to assume the role of advocates for improving teacher preparation, business leaders would make a major difference in the quality of teaching in the classroom.

School Reform and the Reform of Teacher Education

The purpose of schooling in America is to shape children and young people into responsible, caring citizens of a democracy, to ensure that they have the knowledge and skills to lead lives that benefit society, and to teach them how to learn for themselves. Because many believe that schools are not meeting these responsibilities, they have argued that every part of the education system, from classroom and district practices to state education policy to teacher preparation, must be transformed. In most cases, the issues of school reform are framed within an economic rather than democratic context.

The reform of elementary and secondary education in the 1980s and early 1990s, for example, is frequently discussed in terms of the impact of economic and demographic forces on the quality of schooling. On the economic front, many believe that this nation's young people must meet much higher educational standards if the United States is to remain competitive in the international marketplace. From a demographic perspective, the growing population of poor and underprivileged children, many of whom are minority, are increasingly unable to participate in mainstream society without substantially improved academic opportunities within the public school system. It is widely acknowledged that traditional schooling methods, whatever their past successes, cannot produce a workforce for today's technological workplace, nor can it meet the educational needs of children from disadvantaged backgrounds.

- *Restructuring the K-12 System.*

Given these circumstances, the education community, with the support, encouragement, and occasional prodding of government and business leaders, has begun to restruc-

ture schools and redesign the education system to better educate children. Under pressure to meet high academic standards for student learning, district leaders and teachers are designing courses to ensure that all students reach these standards. In many schools, classes are considerably smaller and centered on active learning. Students take more initiative—working in teams, writing reports, making presentations, conducting research, analyzing data, questioning assumptions, and learning to develop and support their own ideas. Their teachers direct, coach, lecture, and stimulate, until every student successfully masters the work. Students are assessed by how well they demonstrate learning, and teachers and districts are held accountable for student learning.

It has become clear that no effort to reform schooling can succeed without also changing how teachers teach and how they learn to teach.

Many of these changes are becoming established in individual schools and districts across the country, and evaluations of some of the major reform programs (including, for example, the Accelerated Schools, the Coalition of Essential Schools, the School Development Project, and Success for All), suggest a renewed sense of commitment by classroom teachers to their job of helping all students learn. But tradition and inertia remain formidable barriers to reform. In far too many classrooms, teachers (whether by choice or by district policy) continue to rely on superficially written textbooks to define what they teach, lecture disengaged students, and assign "busywork" exercises instead of challenging students to meet high academic standards in all the major content areas. It has become clear that no effort to reform schooling can succeed without also changing how teachers teach and how they learn to teach.

- *Improving the Quality of Teacher Education.*

A blueprint exists for reforming teacher education within the context of reforming elementary and secondary schools. In 1990, John Goodlad's seminal text, *Teachers for Our Nation's Schools*, identified structural weaknesses that impair many

teacher education programs and described the essential elements needed for an ideal program to recruit and educate teachers. Through a series of publications, Goodlad and his colleagues provide a plan for the "simultaneous renewal" of schools and the education of educators, featuring intensive collaboration between school and university faculties. Based on Goodlad's work, 25 schools of education in 16 settings and with more than 300 partner schools have joined the National Network for Educational Renewal (NNER). These institutions are redefining the academic courses needed to educate teachers in a democracy as well as the nature (and frequency) of in-school experiences for pre-teachers. In addition to working at college and school sites, the NNER is also concerned with understanding the policy implications of these changes and evaluating how effectively the new approaches to teacher education actually prepare teachers for the classroom.

In spite of the enthusiasm for change generated by these efforts, the teaching of teachers is considered a priority on only a few campuses.

Proposals for teacher education reform have also come from other academic sources. The Holmes Group, created by deans from several prestigious schools of education, advocated a five-year program for teacher education that features a solid education in the liberal arts and an extended practical experience at specially managed schools (called professional development schools) within the public school system. Another example is Project 30 which has created models for strengthening the liberal arts foundation of future teachers. Faculty members from schools of education and arts and sciences at 30 major colleges and universities have developed individual courses at their institutions to immerse teacher education students in discipline-based content while they learn strategies to teach the content to others.

In spite of the enthusiasm for change generated by these efforts, the teaching of teachers is considered a priority on only a few campuses. Promotion, tenure, and funding decisions at most universities and their schools of education demonstrate the low value placed on those faculty members or

programs dedicated to improving the practice of teaching. Arts and sciences faculty rarely consider their courses in terms of providing new teachers a solid foundation of knowledge or models for excellent teaching, and too many courses within schools of education are redundant or essentially content-free. Schools of education remain surprisingly isolated from the major K-12 reforms being undertaken in districts and states nationwide. The implications of content standards on course requirements, assessment, teacher responsibilities, and improved student learning are rarely, if ever, discussed in professional education courses. In addition, most schools of education have yet to integrate information technology into their teacher preparation programs. While pre-teachers may encounter computers in an isolated course or two, they do not explore ways to transform student learning in the core disciplines through using the tools of technology, nor do they see models of such teaching in their own coursework. And finally, many schools of education are failing to recruit a more diverse student body and are inadequately preparing their students for the challenges of urban teaching and changing student populations.

Effective Teacher Preparation for Today's Schools

The first priority of schools of education must be preparing highly qualified teachers for the classroom. All major decisions and activities should focus on this goal: recruitment criteria for students entering the program, course requirements and expectations, collaborative work with others outside the school of education, and practice teaching experiences. Using the recommendations of Goodlad and others, business leaders can identify ways to assist with teacher education reform by focusing on several essential characteristics of an ideal teacher education program.

1. High standards are established to recruit diverse and academically sound applicants.
2. Future teachers demonstrate extensive content knowledge in the liberal arts (especially mathematics and science) and in the subject areas they will teach.
3. Future teachers learn a variety of ways to teach their students, are competent users of technology for both teaching and learning, and have benefited from extensive and carefully supervised practical experiences in the classroom.
4. Schools of education are structurally redesigned and linked closely to the K-12 system.

1. Establish High Standards for Recruiting Students

Schools of education must raise and enforce admission standards that require evidence of strong academic skills and a commitment to teaching and to society s goals for education. Schools of education must reverse the reputation of accepting students with mediocre to poor qualifications into the teacher education program. They need to establish

defensible criteria for individuals entering the teacher education program by identifying the qualities of a good teacher and recruiting candidates likely to meet those requirements. They need to define the high school experiences necessary for pre-teachers (courses taken, extracurricular activities, leadership roles, grade point average, SAT or ACT scores) and require incoming students to excel in these areas. Teacher education programs need to refocus their activities on preparing teachers for the classroom and require entering students to demonstrate their suitability for and commitment to careers in teaching.

Schools of education must develop programs to recruit and support highly qualified minority candidates into teaching careers.

Schools of education must develop programs to recruit and support highly qualified minority candidates into teaching careers. The number of minority teachers continues to decline while the number of minority children in public schools is growing. And, because inner cities often lack financial and community resources, those children attending many urban public school districts struggle to acquire even the most basic education. These trends make educational intervention and compensatory programs essential at every level of schooling, from preschool onward. Instituting such programs early will help expand the number of students qualified to meet high admission standards for teacher education. If they are really committed to expanding the number of qualified minority teacher education candidates, schools of education should take the lead in helping local schools undertake standards-based reforms to ensure that all children reach high academic standards.

Schools of education must allow the clinical experience to dictate the number of students admitted into a teacher education program. Because frequent and diverse experiences within school classrooms have become a critical element of preparing new teachers, the goal of teacher preparation programs must be to admit a limited number of students who can be provided with high-quality, closely supervised clinical experiences.

High standards must characterize programs offering alternate pathways to certification. While all teachers must meet

high academic and pedagogical standards to be certified to teach, there should be a number of qualified programs to train committed and experienced individuals who wish to enter the profession.

2. *Ensure that Future Teachers Demonstrate Solid Content Knowledge*

All future teachers must demonstrate strong knowledge in the liberal arts, especially mathematics and science. The debate within the higher education community over a core curriculum is especially critical for teacher education. Teachers need to have an academic background broad enough and deep enough to make connections among ideas, events, and the experiences of different peoples and cultures over time; they need to be able to hear echoes among the disciplines.

If teachers are going to be instrumental in helping elementary and secondary students reach high academic standards, then the teachers themselves must be excellent students of the core discipline areas. The nation cannot expect teachers with the barest minimum in, say, mathematics and science, to equip students for a role in a high-technology society, or to nurture in students the belief that every student, regardless of sex or race, can acquire quantitative skills. Likewise, if teachers themselves have not learned to read critically and write a cogent, coherent paragraph or letter, they cannot be expected to teach their students the art of clear thinking and communication. Yet, a survey conducted by the National Endowment for the Humanities revealed that students can graduate from 38 percent of the nation's colleges and universities never taking a history course, from 45 percent without studying literature, from 77 percent without studying a foreign language, from 41 percent without taking mathematics, and from 33 percent with no study of the natural or physical sciences.

...teachers themselves must be excellent students of the core discipline areas.

Many Project 30 colleges and universities have developed models for improving the quality of some of the courses preteachers take in the arts and sciences, and a few campuses have

created formal structures to keep teacher preparation a priority with faculties from different disciplines. University faculties—whether from the arts and sciences or the schools of education—need to take responsibility for ensuring that teachers themselves have the basic education they need to prepare students for democratic life. There must be a broader recognition of the whole university's responsibility for what teachers learn and a deeper commitment to teaching for faculty to be mindful of the pedagogical tools they use to teach the content of their disciplines and their roles as model teachers.

Future teachers must be trained as competent users of information technology for both teaching and learning.

3. *Ensure that Future Teachers Learn a Variety of Ways to Teach*

Future teachers must be exposed to a variety of ways to teach their students. When one looks carefully at teaching and learning, two things become apparent: Not all people learn in the same way, and different subjects require different methods of teaching. Successful teachers keep students enthusiastic about learning by varying the way materials are presented. For example, sometimes teachers engage students in hands-on activities, or they may emphasize in-depth reading and discussion, or encourage students to create their own experiments and exercises on the computer.

Educational research, both theoretical and practical, provides important information on successful approaches to teaching diverse groups of people and various academic subjects, and this information should be incorporated into the teacher preparation program. Ironically, while research-based innovations are often the focus of staff development workshops for practicing teachers, they are frequently ignored in courses preparing new teachers. Helping teachers develop an array of teaching strategies is one of the pressing goals of school reform. Teacher education programs should be at the forefront of providing this broad array of strategies to future teachers, instead of expecting them to learn effective teaching practices through trial and error on the job.

Future teachers must be trained as competent users of information technology for both teaching and learning. The explosion of information available through technology is beginning to make its way into schools. Access to the Internet allows students to use real-time data for science and mathematics projects, links them with other students or information sources at remote locations, and puts historical archives in the classroom. To take advantage of these expanding resources, teachers need to know how to incorporate information technology in the preparation and delivery of their lessons. Schools of education must ensure that all future teachers are experienced users of interactive technology and graduate with the skills to navigate an ever-changing world of technology.

Teacher preparation must provide extensive opportunities for practice teaching, especially in restructured school settings. Pre-teachers need a variety of opportunities to work with students who have different interests and skill levels and come from different cultures. A redesigned teacher education program will provide its students with intensive experiences with practitioners, including internships, to learn how to become effective classroom teachers. Some schools of education work closely with newly created professional development schools to offer pre-teachers practical experiences as early as their sophomore year. Pre-teachers observe teachers and their students and, in discussions with university and school faculty, explore the implications of different classroom strategies for promoting student learning. With close supervision, they learn to tutor individual students and help groups of students develop projects before taking on more extensive classroom responsibilities.

Schools of education need to forge closer links between research, reform, and teaching.

Schools of education need to forge closer links between research, reform, and teaching. In model reform efforts in the schools, teachers are developing many innovative classroom practices that could be demonstrated and taught to teacher education students. University researchers need to make their work available in applied form to current and future teachers. To foster a more direct link between research and teaching,

researchers can spend more time in the public schools, engaging teachers as partners as they develop research topics and collect and interpret data.

4. *Redesign Teacher Education, Linking it Closely to the K-12 System*

Higher admission standards, enhanced liberal arts requirements, intensive practical experiences in the schools—all of these proposed reforms in teacher education require accompanying changes in the structure and design of schools of education.

A core group of university and school faculty must be assigned responsibility for developing an effective teacher education program for cohort groups of students. Institutions of higher education must recruit and support an identifiable group of faculty, drawn from the college as well as the schools, and give this group decision-making authority to create and implement a coherent program for teacher preparation. Elements of this restructured teacher education program include: admitting, educating, and graduating students in cohort groups; developing professional and discipline-based courses through a collaborative relationship among teachers, teacher educators, school administrators, and liberal arts faculty; and carefully designing and monitoring practice teaching experiences.

The "simultaneous renewal" of teacher education and school practices, a cornerstone of Goodlad's recommendations for change, centers on this principle of a cohort group of students learning and working together. When three or more student teachers work, as a defined group, in the same school, there is natural interaction between university and school faculties that prompts and influences change in both settings. The future teachers have more opportunities to work with practitioners and teacher educators as they prepare for classroom encounters with students. As more university faculty visit the school, they can better help future teachers anticipate the types of situations they will be observing in the classroom and help them analyze the effectiveness of different teaching strategies. In addition, teachers at the school site may feel freer to suggest changes to university courses in pedagogy and learning theory when school of education faculty are routinely present in the school.

Graduation requirements for education majors must be aligned with high performance standards for teacher licensure. The exhortations of reform advocates, while important, will not reach the majority of educators in either the schools or the universities until they are joined by a new political agenda that requires teachers to meet high academic standards, especially in mathematics and science, before being licensed to teach. To establish a licensing system for new teachers based on performance (what teachers should know and be able to do rather than what courses they take), the Council of Chief State School Officers has sponsored the Interstate New Teacher Assessment and Support Consortium (INTASC). The standards and assessment tools created by INTASC have influenced graduation requirements of university-based teacher education programs and serve as the basis for certifying teachers in a number of states. To graduate with teacher certification, new teachers must be thoroughly prepared to teach all students to reach the high academic content standards defined in specific disciplines; they must have a solid knowledge of how to use technology effectively in the classroom and how to teach students the power and limitations of technology as a learning tool; and they must be able to demonstrate successful practices in the classroom. The extensive process established by the National Board of Professional Teaching Standards for practicing teachers to achieve board certification is also challenging many states to redefine certification, licensure, and accreditation procedures.

Graduation requirements for education majors must be aligned with high performance standards for teacher licensure.

Teacher preparation programs should meet rigorous national accreditation standards. In *Who Will Teach the Children?* author Harriet Tyson points out that "one of the major obstacles to the improvement of teacher education is the failure of the states to shut down inferior teacher education programs" (p. 136). In fact, state regulations are often the source of incoherent and mediocre teacher education programs as legislatures establish more and more course require-

ments in response to pressure from special interest groups and without concern for the integrity of the program. The traditional state accreditation process details course offerings, faculty credentials, number of resources available, and other quantifiable objectives, but it rarely considers how well pre-teachers learn in their liberal arts courses or what kinds of practical experiences they encounter within the local schools. It is worth noting that no school of education has ever lost accreditation, and there is no system of accountability based on how well teachers perform on the job after graduation.

Efforts to improve the quality of teacher preparation must be aligned with the goals of school reform.

The National Council for Accreditation of Teacher Education (NCATE) has recently developed rigorous accreditation standards for schools of education including high standards for admission and graduation, real-world clinical experiences for pre-teachers, and the use of academic standards to develop programs. Out of approximately 1,300 schools of education nationwide, only 500 have been accredited by NCATE, but many states claim to use NCATE accreditation standards as a base for developing their own accreditation procedures.

Efforts to improve the quality of teacher preparation must be aligned with the goals of school reform. The National Commission on Teaching and America's Future, established in 1994 with grants from the Carnegie Corporation and Rockefeller Foundation, was created to identify the implications for teaching embodied in current school reform. The proliferation of discipline-based content standards projects and the public's renewed emphasis on the "basics" are exerting increased pressure on schools of education to produce teachers with a deep understanding of subject areas and the instructional skills to teach the subjects to others. In addition to the pressure of content standards, schools are attempting to serve a broad student population that includes a large number of immigrant children, special education students, and poor children. The commission will examine what steps need to be

taken to guarantee all children access to skilled, knowledgeable, and committed teachers working in schools that are capable of meeting the nation's education goals. Using its study of the relationship between school reform and teacher education, the commission will develop a comprehensive blueprint for recruiting, preparing, and supporting teachers, and plans to publish its recommendations in 1996.

The Task Ahead

For the past 15 years, reform efforts in some schools and innovations within a few teacher education programs have helped clarify the inherent complexities of the education system and the evolutionary nature of education change. The challenge today is twofold: to transform the public schools, even those in the poorest school districts, into places where all students meet high academic standards, and to prepare teachers with the knowledge and skills needed to teach in those schools. Meeting the challenge will mean concentrated, serious work for at least the next two decades and will certainly require diligence, careful management, additional resources, and patience from those working for reform.

What Business Leaders Can Do to Help

As universities and their schools of education undertake changes in how they educate and prepare new teachers for the schools, they will need additional resources and support. A number of opportunities exist for corporate leaders concerned about the quality of classroom teachers.

1. Support efforts to recruit top students.

To increase the number of highly qualified, committed teachers in the nation's classrooms, the business community can target its resources and partnership activities to those programs that help teacher education programs not only recruit excellent students (especially in critical subjects like mathematics and science and among minority groups) but also support them during their teacher preparation.

Fund the creation of teaching academies and cadet programs to encourage more students to enter teaching careers and to ensure that those students are academically well prepared. By providing seed money for projects targeting middle and high school students, many corporate and private foundations have supported efforts to expand the number of students interested in teaching. The Telesis Foundation, for example, helped develop a Teachers for Tomorrow magnet program in San Francisco, and, with funding from the BellSouth Foundation and Pew Charitable Trusts, the Southern Education Foundation brought middle and high school students from its Teacher Cadet Program to college campuses for an academic enrichment and tutorial program during the school year.

Provide scholarships and fellowships to future teachers. Many companies offer special scholarship programs to

attract young people into teaching, but more programs are needed. In some scholarship programs, students are identified early in high school and given additional academic support through special tutoring or mentoring programs so they can meet high entrance requirements. Often scholarship and fellowship programs are tailored for specific audiences (for example, underrepresented minorities) and/or specific subject areas (particularly mathematics, science, and technology).

Improve the capacity to recruit and graduate more minority teachers. Precollegiate recruitment programs can be created to expand the pool of potential minority teachers and to promote teaching careers among the best students. In many communities, magnet schools, Future Teacher clubs, and teacher cadet programs help students meet academic standards set by schools of education and provide stipends to enable them to participate in pre-teaching experiences. The Prudential, Tiger, and Time-Warner foundations, along with several prominent private foundations, are supporting a comprehensive urban teacher recruitment and development campaign via Recruiting New Teachers, Inc. Using innovative and award-winning public service outreach and referral, Recruiting New Teachers is working in partnership with the Council of Great City Schools and the Council of Great City Colleges of Education in an Urban Teacher Collaborative to expand the number of recruits into urban teaching.

Philip Morris Companies provides support for a Minority Teacher Development program which places undergraduate and graduate students of color in teaching internship positions in public and private schools. In addition to working with a mentor teacher in supervised teaching experiences for an academic year, students receive salary and scholarships to pursue postsecondary degrees, and academic preparation for teacher certification tests. Instituted by the Multicultural Alliance, this nationwide project is supported by over 200 K-12 schools, colleges, and universities.

Recognizing that within the next few decades, more than one fourth of the nation's school children will be Latino, the Tomas Rivera Center has been working with a number of colleges and universities to increase the number of well-prepared Latino teachers and to improve the preparation of all teachers of Latino students. A survey of these institutions identified both the barriers that keep many Latinos from entering or, once enrolled, from completing teacher education pro-

grams, and the practices that can lead to overcoming those barriers. One approach the center identified as successful in retaining minority students is the Learning Community, a program that integrates comprehensive student advising, basic skills development, and supportive environments that encourage students to perform well. With funding from the Exxon Education Foundation, the center has helped schools of education in four major universities create demonstration models of how to recruit, retain, and prepare Latino teachers for the classroom. Out of this experience, the center has been able to recommend effective policies and strategies to other institutions seeking to attract more Latino students into the teaching profession.

2. ***Promote efforts to improve teachers' content knowledge.***

Business leaders are understandably reluctant to recommend how faculty should develop curricula or plan a coherent, sequenced preteaching program. However, they can play a role in improving core curricula for future teachers, as well as for elementary and high school students. The following strategies suggest how.

Encourage core curricula grounded in arts and sciences for teachers. Future teachers need a solid grounding in the content and structure of academic subjects and an understanding of how best to teach subjects to diverse students in different grades. Universities are encouraging joint planning and teaching through Project 30 and other reform efforts, many between schools of education and the arts and sciences. Business leaders can promote these connections to strengthen the content, structure, and sequence of courses by funding faculty professional development workshops and supporting the dissemination and replication of successful courses. In its "Faculty for the Future" initiative, the GE Fund has supported a number of programs designed to improve the quality of teaching on campuses both to ensure that college students receive solid grounding in content and to encourage model instructional strategies.

Expand knowledge about how best to teach certain subjects. Businesses can focus on those subjects most important to the continued health of the industry, and help teachers and researchers develop the most effective methods for teaching these disciplines and evaluating students' mastery of the subjects. The Exxon Education Foundation, through a grant to the National Research Council, has begun a

multi-year commitment to bring together members of scientific societies and higher education organizations to consider how science education can be improved for all undergraduate students. The Committee on Undergraduate Science Education will identify issues and goals of undergraduate science, mathematics, technology, and engineering education reform and offer specific recommendations for curricular, pedagogical, and policy changes. When these recommendations are issued, support and resources from a number of additional companies will be required as colleges and universities undertake necessary changes.

Encourage educators to link content-based curricula to standards. Determining what teachers need to know and be able to do is the heart of improving teacher education programs. The Interstate New Teacher Assessment and Support Consortium (INTASC) has established a set of performance-based licensing standards for teachers that are becoming the foundation for quality control in the profession. The standards include 10 principles comprising expectations of teachers' knowledge in core subject areas, in child development and learning theory, and in instructional strategies. Since many states have based their state licensure requirements on INTASC standards, schools of education across the country are in the process of redesigning their teacher preparation programs to ensure that graduates meet these standards.

With funding from the BellSouth Foundation, faculty from the University of Kentucky and the University of Lexington are developing case studies that demonstrate "best practice" teaching to the standards. These cases, available in CD-ROM format, are content-driven, capturing a rich depiction of effective subject-matter teaching. To help teachers recognize and understand good teaching strategies, each case provides contextual details and is linked to the INTASC standards of teaching. The CD-ROM format allows pre-teachers who are studying the cases in teacher preparation programs at the universities to communicate via e-mail with practicing teachers throughout the state, discussing the implications of classroom strategies and learning about what works on the job.

3. Help teachers learn a variety of ways to teach students.

Training on the job is the forte of the business community. The proposed reforms calling for sustained professional education through practice and analysis should provide a close fit for companies interested in supporting teacher education reform.

Discover what works and share this knowledge with teacher ed students. Instructional innovation is central to a number of successful K-12 reform efforts, yet many of these innovative strategies are not incorporated into teacher education programs. And, while social and behavioral science research and educational research provide a substantial and essential body of information about how children develop and learn, this knowledge rarely is integrated systematically into teacher preparation or practice. Through special funding, companies could help schools of education consolidate knowledge about how best to incorporate effective teaching practices (as identified by research) into classrooms and schools.

Provide opportunities for teachers to become competent users of information technology. Several companies have developed successful programs that introduce classroom teachers to the power and uses of technology in helping students learn. For example, Texaco has provided long-term support to the National Teacher Training Institute for Math, Science, and Technology, a program that helps teachers learn how to use video technology to enhance their classes; this program has expanded to 26 sites nationwide and reaches thousands of teachers. The Autodesk Foundation has also introduced teachers to new strategies for using multimedia technology and expanding educational opportunities beyond the classroom; Autodesk's Institute for Information Age Education served as a model for similar programs in other parts of the country. Apple Computer created its Apple Classrooms of Tomorrow (ACOT) as a research and development collaboration to explore how teaching and learning change when people have immediate access to technology. As a result of Apple's investment, both teachers and students have transformed the way they work with others to gather information, create projects, and solve problems. In addition to ACOT, Apple Computer is about to enter its 17th year of supporting innovative uses of technology in schools through its Education Grants Program. This program, which has supported 20 K-12 and teacher

preparation institution partnerships throughout the country, provides curriculum technology training; hardware, software, and access to online communication; online collaboration; and live conversations on internet, mentoring, and site visit support.

Some companies are helping schools physically join the technological revolution. Through its Education First initiative, Pacific Bell Telephone plans to put the system infrastructure in place so that 8,600 California schools, libraries, and community colleges have ready access to the "Information Superhighway." AT&T announced the creation of the AT&T Learning Network which will help provide the nation's public and private elementary and secondary schools free dial-up Internet service, browser software, and 100 hours of free usage on the Internet, giving students ready access to information, places, and people anywhere in the world. In addition, the AT&T Learning Network will offer schools and teachers voice messaging mailbox services to facilitate communication between school personnel and families. AT&T is also committed to helping teachers gain the skill and expertise they will need to use the technology effectively. The AT&T Foundation will support the Learning Network by providing a series of grants to aid in the preparation of new teachers as well as encouraging family involvement in education and professional development activities for current teachers.

...teachers in all disciplines must become familiar with the uses of technology and learn how to integrate technology into their lessons while they are preparing for their teaching careers.

The implications of these opportunities for schools and teachers to increase their technological capacities should not be lost on schools of education. Before they can help students learn how to acquire and use the information readily available from electronic sources, teachers in all disciplines must become familiar with the uses of technology and learn how to integrate technology into their lessons while they are preparing for their teaching careers. Companies wishing to ensure ready access of technology for students in elementary and secondary

school classrooms need to consider how to help schools of education meet the challenge of bringing new teachers into the information age.

Support the creation and expansion of professional development schools. Using the model of teaching hospitals, many schools of education have established relationships with local schools to provide student teachers with extended, well-supervised experiences in classroom teaching and school interactions. Professional development or professional practice schools require long-term commitments of time, energy, patience, cooperation, and effort from school system teachers, administrators, and staff, and from university faculty and administrators. Companies, especially those that enjoy partnerships with individual schools, should seriously consider working closely with clinical schools to support effective programs for preparing future teachers.

While there are many exemplary models of professional development schools, only a few have benefited from corporate support. The Monsanto Fund, as early as 1989, recognized the potential impact of its investment in teacher education and began a six-year commitment to the Wilkinson Early Childhood Center, a professional development school collaboration between the St. Louis Public Schools and Maryville University. Faculties from the school system and the university jointly developed a school for children ages three to seven grounded in current educational research. They also worked together to create a teacher preparation program of coursework and practical experiences for university students interested in teaching young children. The center, which successfully educates its students and maintains strong parental involvement, has become a collaborative site for preservice and inservice professional development of teachers, teacher education students, and university faculty.

Over 200 professional development schools have been created through school-university collaboratives across the country, and more schools of education are exploring ways to incorporate extensive clinical experiences into their teacher education programs. With funding from the AT&T Foundation, the National Council for Accreditation of Teacher Education (NCATE) is creating standards for professional development schools that will identify best practice models for how to integrate internships and professional development schools into the continuum of professional education. The standards will help advance reforms in schools of education as they restructure programs to include a more intensive clinical education component.

Fund action research projects for classroom teachers—in which teachers participate in defining, collecting, and interpreting data. Many, if not most, of the exciting and innovative ideas being tried in classrooms around the country are neither modeled nor described in teacher education programs. As a result, new teachers reach their first classroom knowing little about the issues of school reform and the efforts being made to address them. Business can help bridge the gap in several ways. Research faculty from colleges and universities tend to study teaching and learning through academic rather than applied research, observing but not engaging in the daily process of teaching. It would be useful if they could augment their research with field studies conducted by practicing teachers, who possess a wealth of experiential knowledge. While teachers profit by discovering relationships between how they teach and how their students learn, the benefits of such action research can also have an immediate impact on the reform activities being undertaken at the school.

It is imperative to measure how well teachers perform by standards that reflect the type of teaching and learning desired.

Participating schools in the "Education for the Future" initiative (launched in 1989 by the Telesis Foundation) use action research as a means to keep their reform plans focused on improving student learning. The staff of one elementary school, for example, was concerned about how poorly their students scored on mathematics tests measuring critical thinking skills. After examining student scores, they worked as a team to develop a set of hypotheses for changing instructional and assessment strategies and to establish a time table for tracking progress. Through frequent communication and collaboration, the faculty transformed the way they taught mathematics at each grade level and as a result, 53 percent of the students received higher test scores by the next year and student learning was significantly improved.

Develop new assessment models based on teaching standards. Attempts to reform teacher education are hindered

by a mismatch between the vision of empowered teachers and the tools available to measure teacher effectiveness. Neither old nor new teachers will practice excellent teaching if their performance evaluations are based on how quiet their classrooms are, or on whether they have reached the assigned page in the curriculum manual by October 10. It is imperative to measure how well teachers perform by standards that reflect the type of teaching and learning desired. Performance evaluators need to extend the way they assess teachers, for example, by learning to recognize how teachers coach students successfully, lead students to think independently, and organize classes to encourage cooperative learning and group work. Drawing from their experience in performance assessment, business leaders can help develop better ways to assess teachers.

Help teacher education students learn workplace applications of discipline-based courses. The gaps between what employers need from entry-level workers and what those workers learn in schools continues to widen. Business leaders can work with teacher educators and school leaders to identify needed workplace skills and attitudes so that these can be incorporated into the restructured curricula of teacher education and the public schools.

Teachers should not have to wait until their school is "adopted" by a business to learn that employers seek versatile, adaptable workers with strong analytic, quantitative, communication, and decision-making skills, but evidence shows that such a list of employee qualities surprises even veteran teachers. They expect a corporation to define ideal workers far more narrowly and consequently do not prepare young people adequately for the changing workplace. If companies could communicate their needs at the time teachers are being educated, then teachers would have more realistic ideas of the kinds of skills they should cultivate in their students.

In addition, pre-teachers could benefit greatly by learning practical applications of the subject areas they teach. Lockheed Martin (formerly Martin Marietta) developed a Graduate Fellows Program with the University of Maryland to provide teachers with six- to eight-week summer internships at nearby research laboratories. Each working with a mentor scientist, 25 teachers conduct significant scientific research that, during the next school year, serves as the basis for classroom activities. Participants determine how well students learn from these

classroom activities before sharing them with other teachers through a Teachers Resource Guide and conference presentations. The Maryland Collaborative for Teacher Preparation has extended the concept of the Graduate Fellows Program by introducing a similar work experience internship program to students in teacher education programs in the state.

4. Support and advocate the redesign of teacher education.

In 1993, the BellSouth Foundation sponsored a consultation on how philanthropic agencies can help link high quality teacher preparation to school reform. Central to the discussion was the understanding that teacher education reform will not be successful without concurrent reform of the school system, nor will K-12 reforms thrive without the influx of highly qualified and motivated teachers. The recommendations for business support of teacher education that follow suggest ways to support the redesign of teacher education within the context of the sustained restructuring of the schools.

Provide resources and opportunities for faculty from schools of education to work in tandem with faculties from arts and sciences and the K-12 system to coordinate inservice and preservice for teachers. To establish the prototype teacher education programs proposed by Goodlad, colleges and universities must completely restructure the way they recruit and reward faculty, recruit and support students, design curricula, develop admission and graduation requirements, and work with local school systems. Business leaders can support such restructuring through investments of resources and talent.

The Metropolitan St. Louis Consortium for Educational Renewal, a member of the National Network for Educational Renewal, illustrates how strategic corporate support can help focus change within teacher education and provide the necessary "risk capital" to launch serious reforms. A grant from SBC Foundation (formerly Southwestern Bell Foundation) provided faculty from Maryville University and Harris Stowe State College the time to create, in partnership with faculty from two local school districts, a proposal to the DeWitt Wallace-Reader's Digest Fund for a grant to develop a Center for Inquiry and Renewal. The center, which will be independent of both higher education institutions, will initially offer joint preservice training for cohort groups of novice teachers and eventually inservice professional and

leadership development to practicing teachers in partner schools. Each cohort group of students selected to work in the center's three-year program will study with a core group of faculty-mentors (from arts and sciences, school of education, and the K-12 schools) who, in addition to offering instruction, will accompany students on field-based assignments and participate with them in case studies and action research projects.

Support the creation of charter colleges of education. The Philip Morris Companies is providing start-up funds to create the first charter colleges of education. Developed on principles similar to those of the charter school movement, the charter colleges of education would be given authority to restructure, alter curricula, and put into full operation best practices in teaching, assessment, and professional outreach advocated by Goodlad and others intent on redesigning teacher education. Richard Wisniewski, dean of the College of Education at the University of Tennessee-Knoxville, will lead the charter colleges of education movement by identifying those colleges which are poised to accelerate their reform agenda. These collaborative sites will then be eligible for participation in an upcoming Philip Morris funding initiative.

Those who have been deeply involved in reforming schools of education recognize the limitations imposed by institutional and regulatory hurdles. Under a charter contract, all the critical parties—including the governor, chief state school officer, state board of education, university president and trustees, and the dean and faculty of the college of education—would agree to which university procedures and state regulations would be lifted and under what timetable changes would occur. The charter college will demonstrate best practice and innovative pedagogy in academic courses and in practice teaching experiences in the schools. It will develop deep linkages with collaborating school systems so that the "simultaneous renewal" concept is foremost. Issues of diversity will be addressed and reflected in its programs, and a firm timetable would be set for implementing the proposed changes.

Encourage communication and collaboration between effective K-12 reform networks and schools of education. Many nationally-known school reform efforts have transformed teachers' knowledge and practice and, through several years of innovation and hard work, have identified criteria for successful classroom teaching. Corporate

foundations, many of which have supported the K-12 reform efforts, could help extend the influence of school reforms by supporting collaboration between schools of education and the reform networks. In a few cases, the strategies that emerge from these reforms have been incorporated into teacher preparation programs.

The dean and faculty of Maryville University recognized that the best way to renew the preparation of secondary teachers would be to align the program with schools engaged in the renewal process. They developed a partnership with a local high school that was a member of the Coalition of Essential Schools and, in 1993, offered the campus as the site for the school's Coalition Academy. This began a period of greater collaboration between school and university faculties that strengthened plans to change teacher preparation. The SBC Foundation (formerly Southwestern Bell Foundation) provided critical funding to help Maryville redesign its Secondary Teacher Education Program using the principles of the Coalition of Essential Schools. Faculty from the arts and sciences joined school of education faculty to work with teachers from two local coalition high schools to offer an academic program closely aligned to student needs and to provide school site experiences for pre-teachers that reflect the philosophy and practices of the Coalition of Essential Schools.

In North Carolina, Philip Morris Companies helped launch a major effort to apply the Accelerated Schools process to teacher preparation programs for middle school teachers. Through a partnership of the North Carolina State Department of Instruction, North Carolina State University, and several local districts, the Accelerated Schools process will be used in a higher education setting for the first time. The overall goal of this initiative is to train college faculty to prepare teachers to meet the needs of academically and culturally diverse classrooms of the 21st century.

Support initiatives to increase the number of highly skilled teachers working in urban schools. To improve the quality of education offered by urban school systems and increase student learning, there must be a corps of effective teachers who are well-schooled in their disciplines, skilled in pedagogy, and capable of teaching youngsters from diverse backgrounds. In 1991, the AT&T Foundation, in concert with the American Association of Colleges for Teacher Education, launched its Teachers for Tomorrow Program to change in

fundamental ways programs of teacher preparation in selected urban centers. The program fostered serious and long-term strategic collaboration among urban school systems, local schools of education, and teacher unions to create model experiences for pre-teachers that would bridge the gap between university preparation and school practice. The redesigned teacher education programs developed strategies to improve the clinical phase of training by offering pre-teachers extended opportunities for in-school practice and by closely linking the student teachers with practicing teachers. Through these structured experiences, the Teachers for Tomorrow Program was able to measurably increase the pool of teachers effectively prepared for service in urban schools and has reduced the attrition rate of new teachers in their first five years of teaching.

Business can help, for example, by improving or establishing computer and facsimile networks, by underwriting the production of newsletters and printed materials, and by sponsoring conferences and seminars.

Create networks to link school/teacher education partnership programs. Networks that link school/teacher education partnership programs in one part of the country with those elsewhere are essential to the exchange of innovative ideas and research. Business can help, for example, by improving or establishing computer and facsimile networks, by underwriting the production of newsletters and printed materials, and by sponsoring conferences and seminars. Many schools and school districts will never be associated with a formal teacher education partnership. Yet, these schools are also restructuring their programs, and their teachers have important experiences to share with teacher educators. By establishing computer networks, developing exchange programs, and so forth, business can encourage links between these creative, and often isolated, programs and future teachers to promote the best classroom practices. Such linkages can help teachers dispel some of the professional loneliness that comes with the job, and give them opportunities to honor each other's accomplishments.

The Philip Morris Companies sponsored the development of the Leadership Program within the Institute for Educational Inquiry. Each year, the institute selects 18 to 20 Leadership Associates nominated by settings in Goodlad's National Network for Educational Renewal (NNER). The associates, who participate in 20 days of intensive work during four sessions, engage in conversations centered around fundamental dimensions of teaching education and carry out a year-long inquiry project combining theory and practice. Graduates of the leadership program are expected to serve as leaders in their own settings and to become resource consultants to other settings within the NNER.

The Business Approach to Teacher Education Reform

When business leaders develop programs to support the reform of teacher education, they must undertake three steps: First, they must know the issues, and under what conditions and with what success they can be addressed. Second, they must choose options or entry points best suited to company expectations, needs, and resources; to the needs of future teachers; and to the larger teacher education context. And third, they must manage the program well by developing a clearly focused strategy, monitoring its progress, and recording its effectiveness. Businesses that make a commitment to evaluate and document their programs will be creating a much-needed (and largely nonexistent) body of information about what does and does not work, and under what conditions. That kind of information will prove invaluable to others searching for ways to work more efficiently with schools and universities attempting to change.

Putting together a company program to support teacher education reform involves two kinds of calculations: one to determine the program focus, and the other to determine the kinds of resources (money, staff time, CEO involvement, and so forth) that will be committed to the program. These calculations are neither mutually exclusive nor sequential; program planners must consider both simultaneously and consider how one affects the other. Making choices among a number of strategies and options is a matter of balancing corporate and community needs and expectations. A program consonant with a company's work force needs, its corporate style, or its existing education-support interests is more likely to be sustained over time.

The brief examples of business support of teacher education described in this guide suggest the variety of ways companies can make a long-term impact on improving the quality of teaching in the schools. These approaches should be regarded as illustrative rather than comprehensive. In the next few years, much more effort must go into developing grant-making programs that offer real support for the teacher education reform agenda. Some companies may determine that targeted grants and special project funding provide the most direct route to change in teacher education programs. Others may want to work with universities and schools in partnerships designed to achieve the simultaneous renewal of the teacher education program and the schools in which new teachers will work. Many of the examples included in this report offer exciting opportunities for potential funders to extend the work begun by others. Representatives from the organizations listed on page 35 can provide business leaders more information on teacher education reform and guide them in developing appropriate strategies for support.

...business has the power to bring difficult education issues to the attention of state and local officials and to influence creative approaches to solving them.

Financial support for path-breaking reforms in teacher education is critical, and the opportunities for corporate investment are great. More than anything else, however, business leaders should seek to leverage their financial investments through strong advocacy, at both national and state levels, for improving the quality of teacher education and achieving a high standard for excellent teaching in the schools. As learned through school reform efforts, business has the power to bring difficult education issues to the attention of state and local officials and to influence creative approaches to solving them. Unless state education policies are revised to ensure that future teachers are provided a rigorous and challenging education, and that they are carefully educated to teach what they know to their students, teacher education reform will never occur.

List of Organizations Working on Teacher Education

American Association of Colleges for Teacher Education
One Dupont Circle, Suite 610
Washington, DC 20036-1186
202/293-2450

Association of Teacher Educators
1900 Association Drive
Reston, VA 22091
703/620-3110

Center for Educational Renewal
College of Education, DQ-12
University of Washington
Seattle, WA 98195
206/543-6230

Council for Basic Education
Teacher Education Program
1319 F Street NW, Suite 900
Washington, DC 20004-1152
202/347-4171

Holmes Group
516 Erickson Hall
Michigan State University
East Lansing, MI 48824-1034
517/353-3874

Interstate New Teacher Assessment and Support Consortium
One Massachusetts Avenue NW, Suite 700
Washington, DC 20001-1431
202/336-5505

National Board for Professional Teaching Standards
300 River Place, Suite 3600
Detroit, MI 48207
313/259-0830

National Council for Accreditation of Teacher Education
2010 Massachusetts Avenue NW, Suite 200
Washington, DC 20006
202/466-7496

Office of Reform Assistance and Information
U.S. Department of Education/OERI
555 New Jersey Avenue NW
Washington, DC 20208
202/219-2164

Project 30 Alliance
Center for Excellence in Education
Northern Arizona University
Flagstaff, AZ 86011-5774
520/523-7139

Recruiting New Teachers, Inc.
385 Concord Avenue
Belmont, MA 02178
617/489-6000

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College of Education
University of Washington